

CLAIMS

1. (currently amended) A method for remotely adjusting a hearing aid of a user, comprising the steps of:
generating a command via a first computer at a first location;
transmitting the command to a second computer at a second location over a remote data link;
sending the command from the second computer to a digital signal processor in the hearing aid as a DTMF tone;
outputting a test tone from the digital signal processor based on the command to a user of a telephone wearing the hearing aid;
receiving a user response to the test tone over the remote data link; and
adjusting the hearing aid based on the user response to the test tone, wherein:
said adjusting step comprises the steps of:
transmitting the user response to the first computer over the remote data link;
retrieving a stored audiogram from memory based on an accuracy of the response; and
uploading the audiogram into the hearing aid of the user over the remote data link; and
said audiogram is a compensation curve for adjusting performance characteristics of the hearing aid based on the user response.

2. (canceled)

3. (previously presented) The method of claim 1, wherein said receiving step comprises inputting a response to the command into the second computer via a keyboard attached to the computer.

4. (original) The method of claim 1, wherein said receiving step comprises inputting a response to the command via a key pad on the telephone.

5-7. (canceled)

8. (currently amended) A method for adjusting a hearing aid of a user, comprising the steps of:
generating a command via a computer;
sending the command to a digital signal processor in the hearing aid as a DTMF tone;
outputting a test tone from the digital signal processor based on the command to the user of a telephone wearing the hearing aid;
receiving a response to the test tone by the user;
storing the response to the test tone by the user in the computer;
retrieving a stored audiogram from memory based on an accuracy of the stored response; and
uploading the audiogram into the hearing aid of the user.

9. (canceled)

10. (previously presented) The method of claim 8, wherein said receiving step comprises inputting a response to the command into the computer via a keyboard attached to the computer.

11. (original) The method of claim 8, wherein said receiving step comprises inputting a response to the command via a keypad on the telephone.

12. (canceled)

13. (previously presented) The method of claim 8, wherein said audiogram is a compensation curve for adjusting performance characteristics of the hearing aid based on the user response.

14. (original) The method of claim 8, wherein the command is generated by a first computer at a first location and is received by a second computer at a second location, and said second computer sends the command to the digital processor.

15-17. (canceled)

18. (previously presented) The method of claim 8, wherein the step of sending the command to the digital signal processor is by a wireless link.

19. (currently amended) A method for remotely adjusting a hearing aid of a user, comprising the steps of:

generating a command via a first computer at a first location;
transmitting the command to a second computer at a second location over a remote data link;
sending the command from the second computer to a digital signal processor in the hearing aid as a DTMF tone;
outputting a test tone from the digital signal processor based on the command to a user of a telephone wearing the hearing aid;
receiving a user response to the test tone over the remote data link; and
adjusting the hearing aid based on the user response to the test tone, wherein said receiving step comprises inputting a response to the command into the second computer via a keyboard attached to the computer.

20. (currently amended) A method for remotely adjusting a hearing aid of a user, comprising the steps of:

generating a command via a first computer at a first location;
transmitting the command to a second computer at a second location over a remote data link;
sending the command from the second computer to a digital signal processor in the hearing aid as a DTMF tone;
outputting a test tone from the digital signal processor based on the command to a user of a telephone wearing the hearing aid;
receiving a user response to the test tone over the remote data link; and
adjusting the hearing aid based on the user response to the test tone, wherein said adjusting step comprises the steps of:
transmitting the user response to the first computer over the remote data link;
determining an accuracy of the user response;
retrieving a stored audiogram from memory based on the accuracy of the response; and
uploading the stored audiogram into the hearing aid of the user over the remote data link.

21. (currently amended) A method for adjusting a hearing aid of a user, comprising the steps of:

generating a command via a computer;
sending the command to a digital signal processor in the hearing aid as a DTMF tone;
outputting a test tone from the digital signal processor based on the command to the user of a telephone wearing the hearing aid;

7 receiving a response to the test tone by the user; and
8 storing the response to the test tone by the user in the computer, wherein said receiving step
9 comprises inputting a response to the command into the computer via a keyboard attached to the
10 computer.

1 22. (currently amended) A method for adjusting a hearing aid of a user, comprising the steps
2 of:
3 generating a command via a computer;
4 sending the command to a digital signal processor in the hearing aid as a DTMF tone;
5 outputting a test tone from the digital signal processor based on the command to the user of a
6 telephone wearing the hearing aid;
7 receiving a response to the test tone by the user; and
8 storing the response to the test tone by the user in the computer, wherein the command is
9 generated by a first computer at a first location and is received by a second computer at a second
10 location, and said second computer sends the command to the digital processor.

1 23-66. (canceled)

1 67. (new) A method for remotely performing a hearing test on a user of a hearing aid via a
2 telephone system, the method comprising:
3 transmitting a command from a remote computer over the telephone system to a telephone of the
4 user;
5 rendering the command, by the telephone, as a sound signal;
6 receiving the sound signal at the hearing aid;
7 generating a test signal, by a signal processor in the hearing aid, based on the sound signal;
8 generating a test tone, by the hearing aid, based on the test signal;
9 transmitting a user response to the test tone to the remote computer; and
10 generating, by the remote computer, hearing test results for the user of the hearing aid based on
11 the user response.

1 68. (new) The method of claim 67, wherein:
2 the command is a DTMF signal;
3 the sound signal is a DTMF tone;
4 the test signal is different from the DTMF signal; and
5 the test tone is different from the DTMF tone.

1 69. (new) The method of claim 67, further comprising:
2 generating adjustments, at the remote computer, for the hearing aid based on the hearing test
3 results; and
4 transmitting the adjustments from the remote computer to the hearing aid to adjust operations of
5 the hearing aid.

1 70. (new) The method of claim 69, wherein:
2 generating the adjustments comprises retrieving an audiogram from memory at the remote
3 computer based on the hearing test results; and
4 transmitting the audiogram to the hearing aid.

1 71. (new) The method of claim 69, wherein:
2 the adjustments are transmitted from the remote computer to the telephone via the telephone
3 system; and

4 the adjustments are transmitted from the telephone to the hearing aid as sound signals.

1 72. (new) The method of claim 71, wherein:
2 the adjustments are DTMF signals; and
3 the sound signals corresponding to the adjustments are DTMF tones.

1 73. (new) The method of claim 67, wherein the user response is entered by the user using a
2 key pad on the telephone and transmitted to the remote computer via the telephone system.

1 74. (new) The method of claim 67, wherein the user response is entered by the user into a
2 local computer and transmitted from the local computer to the remote computer.

1 75. (new) The method of claim 67, wherein the signal processor is a digital signal processor.

1 76. (new) A hearing aid, comprising a signal processor, adapted to support remote
2 performance of a hearing test on a user of the hearing aid via a telephone system, wherein:
3 the hearing aid is adapted to receive a sound signal from a telephone, the sound signal
4 corresponding to a command transmitted from a remote computer over the telephone system to the
5 telephone of the user, wherein the telephone rendered the command as the sound signal;
6 the signal processor is adapted to generate a test signal based on the sound signal;
7 the hearing aid is adapted to generate a test tone based on the test signal, wherein a user response
8 to the test tone is transmitted to the remote computer, which generates hearing test results for the user of
9 the hearing aid based on the user response.

1 77. (new) The hearing aid of claim 76, wherein:
2 the command is a DTMF signal;
3 the sound signal is a DTMF tone;
4 the test signal is different from the DTMF signal; and
5 the test tone is different from the DTMF tone.

1 78. (new) The hearing aid of claim 76, wherein the hearing aid is adapted to receive
2 adjustments generated at the remote computer based on the hearing test results, wherein the adjustments
3 adjust operations of the hearing aid.

1 79. (new) The hearing aid of claim 78, wherein the adjustments comprise an audiogram
2 retrieved from memory at the remote computer based on the hearing test results and transmitted to the
3 hearing aid.

1 80. (new) The hearing aid of claim 78, wherein:
2 the adjustments are transmitted from the remote computer to the telephone via the telephone
3 system; and
4 the adjustments are transmitted from the telephone to the hearing aid as sound signals.

1 81. (new) The hearing aid of claim 80, wherein:
2 the adjustments are DTMF signals; and
3 the sound signals corresponding to the adjustments are DTMF tones.

1 82. (new) The hearing aid of claim 76, wherein the user response is entered by the user
2 using a key pad on the telephone and transmitted to the remote computer via the telephone system.

1 83. (new) The hearing aid of claim 76, wherein the user response is entered by the user into
2 a local computer and transmitted from the local computer to the remote computer.

1 84. (new) The hearing aid of claim 76, wherein the signal processor is a digital signal
2 processor.

1 85. (new) A remote computer adapted to support remote performance of a hearing test on a
2 user of a hearing aid via a telephone system, wherein the remote computer is adapted to:
3 transmit a command over the telephone system to a telephone of the user, wherein:
4 the telephone renders the command as a sound signal;
5 the hearing aid receives the sound signal;
6 a signal processor in the hearing aid generates a test signal based on the sound signal;
7 the hearing aid generates a test tone based on the test signal;
8 receive a user response to the test tone; and
9 generate hearing test results for the user of the hearing aid based on the user response.

1 86. (new) The remote computer of claim 85, wherein:
2 the command is a DTMF signal;
3 the sound signal is a DTMF tone;
4 the test signal is different from the DTMF signal; and
5 the test tone is different from the DTMF tone.

1 87. (new) The remote computer of claim 85, wherein the remote computer is adapted to:
2 generate adjustments based on the hearing test results; and
3 transmit the adjustments to the hearing aid, wherein the adjustments adjust operations of the
4 hearing aid.

1 88. (new) The remote computer of claim 87, wherein the adjustments comprise an
2 audiogram retrieved from memory at the remote computer based on the hearing test results and
3 transmitted to the hearing aid.

1 89. (new) The remote computer of claim 87, wherein:
2 the remote computer is adapted to transmit the adjustments to the telephone via the telephone
3 system; and
4 the adjustments are transmitted from the telephone to the hearing aid as sound signals.

1 90. (new) The remote computer of claim 89, wherein:
2 the adjustments are DTMF signals; and
3 the sound signals corresponding to the adjustments are DTMF tones.

1 91. (new) The remote computer of claim 85, wherein:
2 the user response is entered by the user using a key pad on the telephone; and
3 the remote computer is adapted to receive the user response via the telephone system.

1 92. (new) The remote computer of claim 85, wherein:
2 the user response is entered by the user into a local computer; and
3 the remote computer is adapted to receive the user response from the local computer.

1 93. (new) The remote computer of claim 85, wherein the signal processor is a digital signal
2 processor.

1 94. (new) A system for remotely performing a hearing test on a user of a hearing aid via a
2 telephone system, the system comprising the hearing aid and a remote computer, wherein:
3 the remote computer is adapted to transmit a command over the telephone system to a telephone
4 of the user, wherein the telephone renders the command as a sound signal;
5 the hearing aid is adapted to receive the sound signal;
6 a signal processor in the hearing aid is adapted to generate a test signal based on the sound
7 signal;
8 the hearing aid is adapted to generate a test tone based on the test signal;
9 the remote computer is adapted to receive a user response to the test tone; and
10 the remote computer is adapted to generate hearing test results for the user of the hearing aid
11 based on the user response.

1 95. (new) The system of claim 94, wherein:
2 the command is a DTMF signal;
3 the sound signal is a DTMF tone;
4 the test signal is different from the DTMF signal; and
5 the test tone is different from the DTMF tone.

1 96. (new) The system of claim 94, wherein:
2 the remote computer is adapted to generate adjustments for the hearing aid based on the hearing
3 test results; and
4 the remote computer is adapted to transmit the adjustments to the hearing aid to adjust operations
5 of the hearing aid.

1 97. (new) The system of claim 96, wherein the remote computer is adapted to:
2 generate the adjustments by retrieving an audiogram from memory at the remote computer based
3 on the hearing test results; and
4 transmit the audiogram to the hearing aid.

1 98. (new) The system of claim 96, wherein:
2 the remote computer is adapted to transmit the adjustments to the telephone via the telephone
3 system; and
4 the adjustments are transmitted from the telephone to the hearing aid as sound signals.

1 99. (new) The system of claim 98, wherein:
2 the adjustments are DTMF signals; and
3 the sound signals corresponding to the adjustments are DTMF tones.

1 100. (new) The system of claim 94, wherein:
2 the user response is entered by the user using a key pad on the telephone; and
3 the remote computer is adapted to receive the user response via the telephone system.

1 101. (new) The system of claim 94, wherein:
2 the user response is entered by the user into a local computer; and
3 the remote computer is adapted to receive the user response from the local computer.

1 102. (new) The system of claim 94, wherein the signal processor is a digital signal processor.